

EXHIBIT 37

From: [Robert E. Faye](#)
To: [Maslia, Morris \(ATSDR/DHAC/EISAB\)](#)
Subject: MT3DMS results
Date: Saturday, January 13, 2007 5:14:51 PM

Hi Morris,

I have rerun the fate & transport model with a biodegradation rate of 0.0005 as you required. The results are only marginally acceptable and certainly do not represent our "best" calibration. Nevertheless I intend to finish the report with the current simulation results and explain them to the best of my ability. Because of the marginal results, several issues have come to mind that I need to share with you and which I hope to discuss with you in the future, I have listed these issues below.

1. I will find it very difficult to defend these results to my technical peers or in a court of law. Consequently, I would like to write a letter to the record to you and to ERG explaining what has happened, why the results are what they are, and addressing my concerns. I will send a draft of this letter to you first and ask for your comments.
2. I believe we have violated a fundamental rule of good modeling procedure. We let the "tail wag the dog" and assigned extraordinary credibility to simulated numbers rather than to well established concepts. When a choice must be made between accepting less than desirable model results or violating or compromising valid conceptual models, I believe we should accept the undesirable results and explain the limitations of the simulations in that context.
3. I would like to insert a statement in the fate & transport report that ATSDR required 100 percent agreement between the MT3DMS model and the GA Tech model regarding fate & transport parameters. As a result, the biodegradation rate assigned to both models was a compromise between the "best" rates determined by individual model calibration.
4. From a technical point of view, I believe most or all of this unfortunate "mess" has evolved from flawed concepts and applications on the part of GA Tech. Specifically, they applied the calibrated mass loading rate from the MT3DMS model to the unsaturated and saturated zones represented in their model. I assume, initially, they also applied the calibrated MT3DMS degradation rate to the unsaturated and saturated zones. Degradation in the saturated zone is aerobically driven and occurs at rates that are possibly several orders of magnitude greater than anaerobic degradation. The degradation rate that I computed at well TT-26 was reasonably an anaerobic rate. Also, applying the calibrated mass loading rate from the MT3DMS model to the unsaturated zone directly equates the actual ("real world") PCE loss rate at ABC One-Hour Cleaners to the MT3DMS mass loading rate. Such an equation is absurd as it does not account for retention and degradation within the unsaturated zone. The MT3DMS code requires that mass loading be applied directly to the water table and thus can represent, at best, only the minimum loss rate at ABC One-hour Cleaners. I believe if GA Tech had calibrated, instead, to simulated PCE concentrations at the water table at the loading elements and had applied a reasonable aerobic degradation rate to their unsaturated zone, then a mass loading rate significantly greater than the calibrated MT3DMS rate would result for the GA Tech model. This rate would more directly equate to the actual PCE loss due to operations at ABC One-Hour Cleaners. In addition, these approaches would result in a correspondingly greater PCE mass in the saturated zone and quite possibly the calibrated biodegradation rates assigned to the MT3DMS and GA Tech model would be highly similar.

The application of an anaerobic degradation rate to the unsaturated zone and the direct equation of the actual PCE loss due to operations at ABC One-Hour Cleaners to the mass loading rate calibrated for the MT3DMS model violate sound reasoning and hydrologic principles. I am not at all surprised that GA Tech found less PCE mass than required for a reasonable simulation. The fault, however, was not in the assigned degradation rate but rather in their flawed concepts and reasoning. I suspect a thorough technical review by competent peers will point out these issues.

Let me emphasize, I do not intend to change the current model results and I am not asking for any dispensation to do so. However, I would like to follow through on my letter to the record and my other requests as soon as possible. Please let me know your thoughts at your earliest convenience.

Bob